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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SALAD, ABDULLAHI ELM I

ART UNIT PAPER NUMBER

2157

DATE MAILED: 02/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/377,611

Applicant(s)

LARA ET AL.1

Examiner

Salad E Abdullahi

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-2, 4-13, 15, 19-26, and 29-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment

1. Applicants remarks filed on 9/16/2004 with regard to claims 1-2, 4-13,15, 19-26, and 29-31 have been fully considered but they are not persuasive for the following reason.

2. The office action dated 6/16/2004 examiner has objected dependent claim 27 as being dependent to rejected base claim and indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. In subsequent response dated 9/16/2004 applicant amended independent claims 1, 19, 24, and 28 and included the indicated allowable subject matter. However, upon further consideration of the claims, a new ground(s) of rejection is made.

Examiner apologizes for any burden bears to the applicant.

3. Furthermore, applicant responded to examiner's objection to claim 27 as being dependent to rejected base claim and added limitation of claim 27 to independent claims 1, 19 and 24. However, after further reviewing the objected claim limitation such (i.e., waiting until a predetermined number or percentage of the agents determine that their respective web servers are able to receive the identified changes before transmitting the identified changes to the agents), examiner asserts a predetermined number agents could include a 0, 1 or more agents and the specification did not provide what the predetermined number is. Given, the claims to the broadest interpretation, then when the number of agent(s) is zero, than it implies that the waiting step requires no agent to respond. Applicant is requested to clarify.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 1 recites the limitation "the one agent" in 14. There is insufficient antecedent basis for this limitation in the claim.
6. Claim 24 recites the limitation "the signal" in 10. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-2, 4-13, 15 and 19-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christie et al U.S. Patent No. 6,182,117[hereinafter Christie] in view of Chessell et al., U.S. Patent No. 6,654,891[hereinafter Chessell].

As per claim 1, Christie et al discloses a method for replicating changes in a master source file set on a destination file system located on a host, the destination file system for access by a web server, comprising the steps of:

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identifying changes in the source file set (identifying changes made to objects in local site's database (see col. 3, lines 9-65 and col. 5, lines 13-20);

storing the identified changes in a modification list (storing updates in an event table), (see col. 5, lines 13-37);

transmitting the modification list to an agent in communication with at least one server, the agent having access to a destination file stem, the destination file, the destination file system, the agent and at least one server running on the same host, thereby notifying the at least one server that the master source file set has changed (see fig. 2 and col. 5, lines 13-37); and

receiving a response from the agent after the step (d) indicating that the destination file system installed the identified changes(col. 6, lines 24-30 and col. 19, lines 21-27).

Christie is silent regarding: waiting until a predetermined number or percentage of the agents determine that their respective web servers are able to receive the identified changes before transmitting the identified changes to the agents;

Chessell discloses a method for coordinating the processing of transactions including the step for waiting until a predetermined number or percentage of the agents determine that their respective web servers are able to receive the identified changes before transmitting the identified changes to the agents (i.e., waiting a vote to commit transaction from server process) (see col. Fig. 2 and col. 7, lines 44-56). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to incorporate the teaching of Chessell into the system of Christie to ensure majority of servers agree to commit changes.

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Christie and Chessell are silent regarding: the computer system includes a web server system.

However, a web server system is well known system, part of web service system.

Furthermore, Christie discloses replicating data between computer sites, which are located remotely from each other indicating this replication process, can obviously be utilized in web cache system in order to replicate data from a particular web site to a web servers closer to the client computers. Therefore, it would have been obvious to one having ordinary skill in art, at the time of the invention to incorporate the a web server system into the system of Christie and Chessell because the advantage of implementing replicating service using a web server is that new features can be added easily, can accessed via the Internet to enhance the service and can dynamically minimize latency.

In considering claim 2, Christie discloses the method of claim 1, further comprising the step of: transmitting the copy of a changed file of the master file set to the agent (see col. 3, lines 11-24).

In considering claim 4, Christie et al discloses the method of claim 1, wherein the identifying step comprises the steps of:
inspecting a current version of the master source file set (see col. 3, line 65 to col. 4, line 10, and col. 5, lines 13-37);

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comparing the current version to a previous version of the master source file on the master computer (col. 5, lines 13-37).

In considering claim 5, Christie the method of claim 1, wherein the identifying step comprises the steps of:

installing a device driver to perform file operations and recording, by the device driver, changes to the source file set (see col. 10, lines 16-20); and

recording, by the device driver, changes to the master source file set (see col. 3, line 65 to col. 4, line 10, and col. 5, lines 13-37);

In considering claim 6, Christie the method of claim 1, wherein the identifying step comprises the steps of:

receiving a manifest (table) describing changes to the source file set (see col. 3, line 65 to col. 4, line 10, and col. 5, lines 13-37).

In considering claim 7, Christie discloses the method of claim 4, wherein the comparing step comprises comparing file attributes of the file current version of the master source file set to the file attribute of the previous version of the master source file set the current version to a previous version of the master source file on the master computer (see col. 5, lines 13-37).

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In considering claim 8, Christie discloses the method of claim 7, wherein the file attribute comprises at least one attribute from a group consisting of file size, file permission, file ownership, modification time and hash of the file (see col. 14, lines 51-67).

In considering claims 9-13. "Official Notice" is taken that both the concept and advantage of using calling a script of user configurable instruction by calling an operating system is well known in the art. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to utilize a calling a script of user configurable instruction by calling an operating system function because user configurable scripts are known to execute user function that are specific to user's needs.

In considering claim 15, Christie et al., discloses a system, wherein the transmitting step comprises multi-casting (see col. 5, lines 21-37).

As per claim 19, Christie et al discloses a system comprising the steps of:
a manager (agent manger 320) for managing the replicating system (see fig. 3a and col. 3, lines 9-65 and col. 5, lines 13-20);
a host (314) comprising a server (321) for receiving requests and agent in communication with the manager and the server (see fig. 3a and col. 10, lines 34-67);

storing the identified changes in a modification list (storing updates in an event table),
(see col. 5, lines 13-37);and

a content distributor (replicator 308) in communication with the host and the manager,
the content distributor providing notification of changes to a master source file set on a
master computer to the host (see fig. 3a and col. 10, lines 34-67).

receiving a response from the agent indicating that the identified changes are installed
(see col. 6, lines 24-30 and col. 19, lines 21-27).

Christie is silent regarding: waiting until a predetermined number or percentage of the
agents determine that their respective web servers are able to receive the identified
changes before transmitting the identified changes to the agents;

Chessell discloses a method for coordinating the processing of transactions including
the step for waiting until a predetermined number or percentage of the agents determine
that their respective web servers are able to receive the identified changes before
transmitting the identified changes to the agents (i.e., waiting a vote to commit
transaction from server process) (see col. Fig. 2 and col. 7, lines 44-56). Therefore, it
would have been obvious to one having ordinary skill in the art at the time of the
invention to incorporate the teaching of Chessell into the system of Christie to ensure
majority of servers agree to commit changes.

Christie and Chessell are silent regarding: the computer system includes a web server
system.

However, a web server system is well known system, part of web service system.

Furthermore, Christie discloses replicating data between computer sites, which are

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located remotely from each other indicating this replication process, can obviously be utilized in web cache system in order to replicate data from a particular web site to a web servers closer to the client computers. Therefore, it would have been obvious to one having ordinary skill in art at the time of the invention to incorporate the a web server system into the system of Christie and Chessell because the advantage of implementing replicating service using a web server is that new features can be added easily, can accessed via the Internet to enhance the service and can dynamically minimize latency.

In considering claim 20, Christie discloses the system of claim 19, further comprising a traffic manager (moderator 314) for directing requests (see col. 10, lines 34-53).

In considering claim 21, Christie discloses the system of claim 19, wherein the content distributor comprises:

an identification module for identifying changes in the master source file set (identifying changes made to objects in local site's database), (see col. 3, lines 9-65 and col. 5, lines 13-20);

a modification list for storing the identified changes in a modification list (storing updates in an event table), (see col. 5, lines 13-37), comprising unique identifiers (UID) (see col. 3, lines 47-65);

a transmitter for transmitting the modification list to an agent (340) having access to a destination file stem (see col. 5, lines 13-37); and

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a receiver receiving a response from the computer indicating that the identified changes are installed (col. 6, lines 24-30 and col. 19, lines 21-27).

In considering claim 22, Christie discloses the system of claim 21, further comprising a transmitter for transmitting a copy of a changed file of the master source file set to the agent (see col. 3, lines 9-65 and col. 5, lines 13-20);

In considering claim 23, Christie discloses the system of claim 21, wherein the agent comprises an installer for installing a copy of changed file of the master source file set on the destination system (see col. 6, lines 24-30 and col. 19, lines 21-27).

As per claim 24, Christie discloses a content distributor in communication with a computer, comprising:

an identification module for identifying changes in the master source file set (identifying changes made to objects in local site's database), (see col. 3, lines 9-65 and col. 5, lines 13-20);

a modification list for storing the identified changes in a modification list (storing updates in an event table), (see col. 5, lines 13-37), comprising unique identifiers (UID) (see col. 3, lines 47-65);

a transmitter for transmitting the modification list to an agent (340) having access to a destination file stem (see col. 5, lines 13-37); and

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a receiver receiving a response from the computer, the response indicating that the destination file system received the identified changes (col. 6, lines 24-30 and col. 19, lines 21-27).

Christie is silent regarding: waiting until a predetermined number or percentage of the agents determine that their respective web servers are able to receive the identified changes before transmitting the identified changes to the agents;

Chessell discloses a method for coordinating the processing of transactions including the step for waiting until a predetermined number or percentage of the agents determine that their respective web servers are able to receive the identified changes before transmitting the identified changes to the agents (i.e., waiting a vote to commit transaction from server process) (see col. Fig. 2 and col. 7, lines 44-56). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to incorporate the teaching of Chessell into the system of Christie to ensure majority of servers agree to commit changes.

Christie and Chessell are silent regarding: the computer system includes a web server system.

However, a web server system is well known system, part of web service system.

Furthermore, Christie discloses replicating data between computer sites, which are located remotely from each other indicating this replication process, can obviously be utilized in web cache system in order to replicate data from a particular web site to a web servers closer to the client computers. Therefore, it would have been obvious to one having ordinary skill in art at the time of the invention to incorporate the a web

server system into the system of Christie and Chessell because the advantage of implementing replicating service using a web server is that new features can be added easily, can accessed via the Internet to enhance the service and can dynamically minimize latency.

In considering claim 25, Christie discloses the content distributor of claim 24, wherein the transmitter is also for transmitting a copy of a changed file of the master file set to the agent for installation to the destination file system (see col. 3, lines 11-24).

In considering claim 26 Christie discloses the method of claim 7, wherein the file attribute is stored in a list of file attributes (see col. 14, lines 51-67).

As per claim 28, the claim include features discussed above with respect claim 1, further reciting: aborting transmission of the changes to the agents if fewer than the predetermined number or percentage of the web servers are able to receive the updated content(see Chessell, col. 7, lines 44-56).

9. Claims 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christie as applied to claim 1 and 28 above, and further in view of Bogantz U.S. Patent No. 6,243,715[hereinafter Bogantz].

Christie is silent regarding: transmitting a signal to the agent separate from the modification list, the signal indicating that the agent is permitted to install the changes in the at least one server.

Bogantz in an analogous art discloses a system for replicating database changes including transmitting a signal to the agent separate from the modification list, the signal indicating that the agent is permitted to install the changes in the at least one server (see fig. 2 and col. 8, lines 8-24). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to incorporate the teaching of Bogantz such transmitting a signal to the agent separate from the modification list, the signal indicating that the agent is permitted to install the changes in the at least one server into the Christie's system such that changes the master database records can be replicated to ensure data atomicity, data synchronicity and fault tolerance during all phases of processing.

CONCLUSION

10. The prior art made of record and not relied upon is considered pertinent to the applicant's disclosure.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Salad E Abdullahi whose telephone number is 703-308-8441. The examiner can normally be reached on 8:30AM - 5:00PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on 703-305-4792. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).


Abdullahi Salad
Examiner AU 2157
2/5/2005